

**Notice of Allowability**

Application No.

10/633,344

Examiner

Tuan V. Thai

Applicant(s)

LAM ET AL.

Art Unit

2186

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to 5/1/2006.
2. ☒ The allowed claim(s) is/are 1-49 and 57-98 renumbered as 1-91 respectively.
3. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some\* c) ☐ None of the:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

\* Certified copies not received: \_\_\_\_\_.

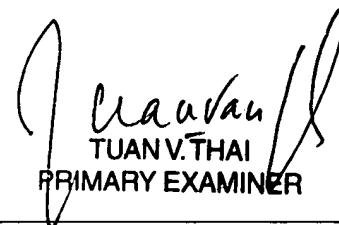
Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

**THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.**

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
- (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
- 1) ☐ hereto or 2) ☐ to Paper No./Mail Date \_\_\_\_\_.
- (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date \_\_\_\_\_.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

**Attachment(s)**

1. ☒ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☒ Information Disclosure Statements (PTO-1449 or PTO/SB/08), Paper No./Mail Date 6/21/2004
4. ☐ Examiner's Comment Regarding Requirement for Deposit of Biological Material
5. ☐ Notice of Informal Patent Application (PTO-152)
6. ☒ Interview Summary (PTO-413), Paper No./Mail Date \_\_\_\_\_
7. ☒ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other \_\_\_\_\_

  
TUAN V. THAI  
PRIMARY EXAMINER

Application/Control Number: 10/633,344

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**Attorney's Docket No.: 34826-0003**

**IN THE UNITED STATES PATENT AND  
TRADEMARK OFFICE**

**In re application of:      Lam et al.**

**Group:                      2186**

**Serial No.:                      10/633,344**

**Examiner:                      Tuan Thai**

**For:                      METHOD AND SYSTEM FOR SYNCHRONIZING STORAGE SYSTEM DATA**

1.        This action is responsive to communication filed on 5/1/2006. Applicant's election of claims 1-49 and 57-98 is hereby acknowledged. Claims 50-56 and 99-112 have been withdrawn. Claims 1-49 and 57-98 are now allowed.

**EXAMINER'S AMENDMENT**

2.        An Examiner's Amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 C.F.R. § 1.312. To ensure consideration of such an amendment, it **MUST** be submitted no later than the payment of the Issue Fee.

3.        Authorization for this Examiner's Amendment was given in a telephone interview with Mr. Brandon N. Sklar; Reg. No. 31,667 on July 19, 2006

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4. The application has been amended as follows:

a. In the claims:

a1. Amending the following claim:

**Claim 64.** (Once amended) The system of claim [48] 57, further comprising an interface for sending a copy of the first unit of data from the first storage unit system to the second storage, and a memory for storing the copy in the second storage system, if the first unit of data is determined to be different from the second unit of data.

#### **REASONS FOR ALLOWANCE**

5. The following is an Examiner's Statement of Reasons for Allowance:

The prior arts of record do not teach or suggest, alone or in combination, **all** the limitations and the combination of elements and their functions of the claims of the current invention (independent claims 1, 10, 26, 42-43, 57, 66, 82 and 98). All the independent claims are directed to the same subject matters, the discussion of the reasons for allowance shall be directed to claim 1; however the reasons for allowance will also apply to claims 10, 26, 42-43, 57, 66, 82 and 98. The prior arts of record do not particularly disclose an apparatus

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and method for comparing a first unit of data stored in a first storage system and a second unit of data stored in a second storage system in such a way that a first digest that is generated which represents the first unit of data; deriving a first encoded value using the first digest and a predetermined value; generating a second digest that represents the second unit of data; deriving a second encoded value using the second digest and the predetermined value, and determining whether the first unit of data and the second unit of data are duplicates of one another by comparing the first encoded value and the second encoded value. In light of the foregoing, claims 1, 10, 26, 42-43, 57, 66, 82 and 98 of the present application are found to be patentable over the prior arts.

Claims 2-9, 11-25, 27-41, 44-49, 58-65, 67-78 and 83-97 further limit the allowable independent claims. These claims are therefore allowable for the same reason as set forth above.

Any comments considered necessary by Applicant must be submitted no later than the payment of the Issue Fee and, to avoid processing delays, should preferably accompany the Issue Fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tuan V.

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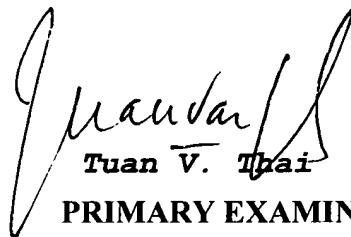
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Thai whose telephone number is (571)-272-4182. The examiner can normally be reached on from 6:30 A.M. to 4:00 P.M..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mathew M. Kim can be reached on (571)-272-4187. The fax phone number for the organization where this application or proceeding is assigned is 571-273-9300. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

**TVT**/July 19, 2006

  
**Tuan V. Thai**  
**PRIMARY EXAMINER**  
**Group 2100**